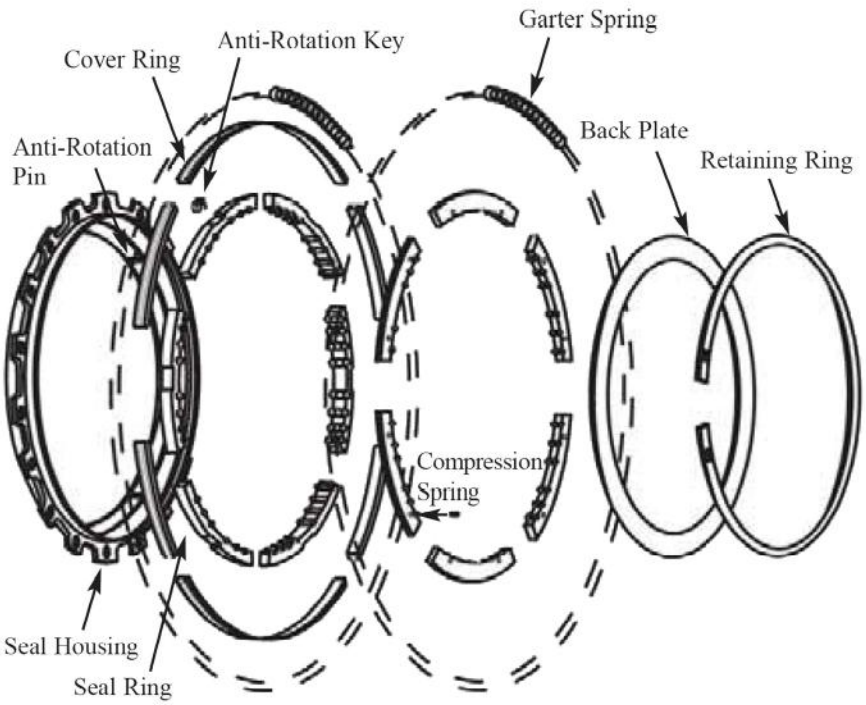
CIRCUMFERENTIAL CARBON SEALS

Stein Seal's line of precision crafted circumferential carbon seals are perfect for low-pressure applications where minimal, controlled gas leakage, high temperatures, unlimited axial shaft movement and low wear are critical. They can be used independently or as part of a sealing system. The exceptionally lightweight carbon material and split housing capability make it easy to install, remove or repair seals in limited space areas.

A versatile choice for a wide range of applications, our circumferential seals offer exceptional performance in aircraft engine main shafts, accessory gearboxes, compressors, centrifuges, pumps and chemical processing equipment.

Key features in our circumferential seal design significantly extend operating life while maintaining top-notch performance. A unique scalloped design incorporated into the individual carbon segments increases flexibility to provide better sealing. A special gap design at the end of each segment permits the seal to handle dimensional changes in the shaft diameter. This gap design, consisting of a precision machined overlapping tongue and socket, creates a tight fit to further minimize leakage. Grooves on the face and bore of the segment reduce pressure loading to maximize seal life.



A combination of compression and garter springs ensures that the segments remain in contact with mating surfaces during low delta pressure and at shutdown conditions.

Types of Circumferential Seals

1. Clearance Seals 2. Liquid Seals 3. Film Riding 4. Hydrostatic 5. Gas Seals 6. Hydrodynamic

General Performance Characteristics

- Shaft rotation speeds up to 183 meters per second (600 feet per second)
- Temperature ranges up to 538° C (1000° F)
- Pressure ranges up to 586 KPa (85 psid)
- Diameter sizes ranging from 23.495 to 1054.100 millimeters (0.925 to 41.500 inches) with no practical upper limit restriction
- Leakage rates remain consistent over the life of the seal
- Seal life is rated at over 20,000 hours